

**What is claimed is:**

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1. A parts suction head of a surface mount device comprising:

5 a motor for generating a predetermined rotary force and transmitting the rotary force to a rotation central axis;

a ball spline unit for performing a rotation movement and vertical reciprocation by the rotary force generated  
10 from the motor;

a rotation shaft unit moved in a vertical direction and rotated, for sucking or mounting a parts; and

coupling means for transmitting the rotary force of the rotation central axis of the motor to the ball  
15 spline unit, and transmitting the rotary force of the ball spline unit to the rotation shaft unit.

2. The parts suction head of a surface mount device according to claim 1, wherein the coupling means  
20 comprises:

a first coupling for connecting the rotation central axis of the motor to one end portion of the ball spline unit; and

a second coupling for connecting the other end  
25 portion of the ball spline unit to the rotation shaft unit.

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3. The parts suction head of a surface mount device according to claim 2, wherein when the rotation central axis of the motor and the ball spline nut of the ball spline unit are inserted, the first coupling for transmitting the rotary force of the motor to the rotation shaft is connected to maintain a predetermined distance (m).

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4. The parts suction head of a surface mount device according to claim 2, wherein when the other end portion of the ball spline of the ball spline unit and the rotation shaft of the rotation shaft unit are inserted, the second coupling is connected to maintain a predetermined distance (m).

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5. The parts suction head of a surface mount device according to claim 1, wherein a bearing is provided to the ball spline nut to restrict a rotation radius of the rotation shaft receiving the rotary force.